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WASHING MACHINE SERVICE MANUAL

CAUTION

READ THIS MANUAL CAREFULLY TO DIAGNOSE TROUBLE CORRECTLY BEFORE OFFERING SERVICE.

MODEL: WD(M)-65130F

WD(M)-80130F

WD(M)-10130(5)F WD(M)-10131F

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1. SPECIFICATION

ІТ	EM	WD(M)-65130F, WD(M)-80130I	F, WD(M)-10130(1, 5)F					
POWER	SUPPLY	220-240V~, 50Hz						
PRODUC	T WEIGHT	67kg						
ELECTRICITY	WASHING	190W						
CONSUMPTION	SPIN (800rpm)	450W						
	DRAIN MOTOR	32W						
REVOLUTION	WASH HEATER	2000W						
SPEED	WASH	45rpm						
	SPIN	WD(M)-65130F	400/500/650 rpm					
		WD(M)-80130F	400/600/800 rpm					
		WD(M)-10130(1, 5)F	400/800/1000 rpm					
OPERATION WA	TER PRESSURE	0.3-10kgf/cm² (30-1000kPa)						
CONTI	ROL TYPE	Electronic						
		7.0kg						
WASH C	CAPACITY	Synthetic (3.5kg), Delicate (3.0kg)						
		Wool (2.0kg), Hand Wash(2.0kg), Quick 30(2.0kg)						
DIMEN	NSION	600 mm(W) $\times 600$ mm(D) $\times 850$ mm(H)						
WASH PI	ROGRAM	Cotton, Synthetic, Delicate, Wool, Hand Wash,						
		Quick 30, Rinse+Spin, Pump						
ОРТ	TION	Pre Wash, Time Save, Rinse+, Crease Care						
DOOR SW	/ITCH TYPE	Bi-Metal type						
WATER	LEVEL	9 steps (by sensor)						
SENSING OF THE L	AUNDRY AMOUNT	Adopted						
FUZZY	LOGIC	Adopted						
ERROR D	IAGNOSIS	7 items						
POWER A	UTO OFF	Adopted						
CHILD	LOCK	Adopted						

2. FEATURES & TECHNICAL EXPLANATION

2-1.FEATURES



■ Jumbo drum

LG's jumbo drum can wash about 40% more per load than conventional washing machine. A bigger drum improves the wash performance.



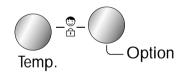
■ Protection against wrinkles

With the alternate rotation of the drum, wrinkling in the laundry is minimized.



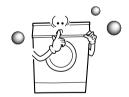
■ More economical by Fuzzy Logic System

FUZZY Logic System detects the amount of load and water temperature, and then determines the optimum water level and washing time to minimize energy and water consumption.



■ Child-Lock

The Child-Lock system has been developed to prevent children from pressing any button (except Power button) to change the program during operation.

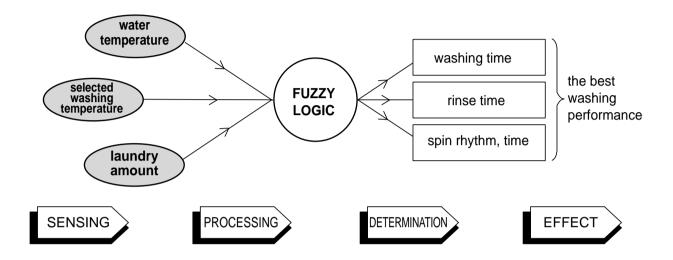


■ Low noise speed control system

By sensing the amount of load and balance, automatical distributes load evenly to minimize the spinning noise level.

2-2.DETERMINE WASHING TIME BY FUZZY LOGIC

To get the best washing performance optimal time is determined by sensing of water temperature, selected washing temperature and laundry amount.



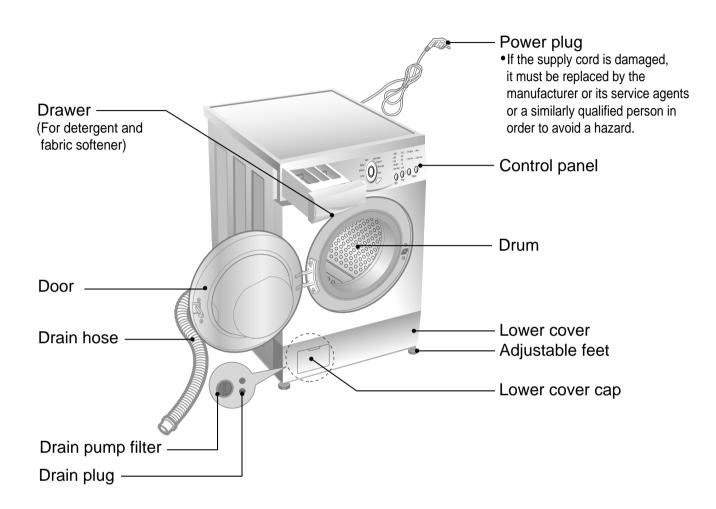
2-3.WATER LEVEL CONTROL

- This model adopts a pressure sensor which can sense the water level in the tub.
- When the water level reaches to the preset level the water supply is stopped, then the washing program proceeds.
- Spinning does not proceed until the water in the tub reduces a certain level.

2-4.THE DOOR CAN NOT BE OPENED

· While program is operating.

3. PARTS IDENTIFICATION



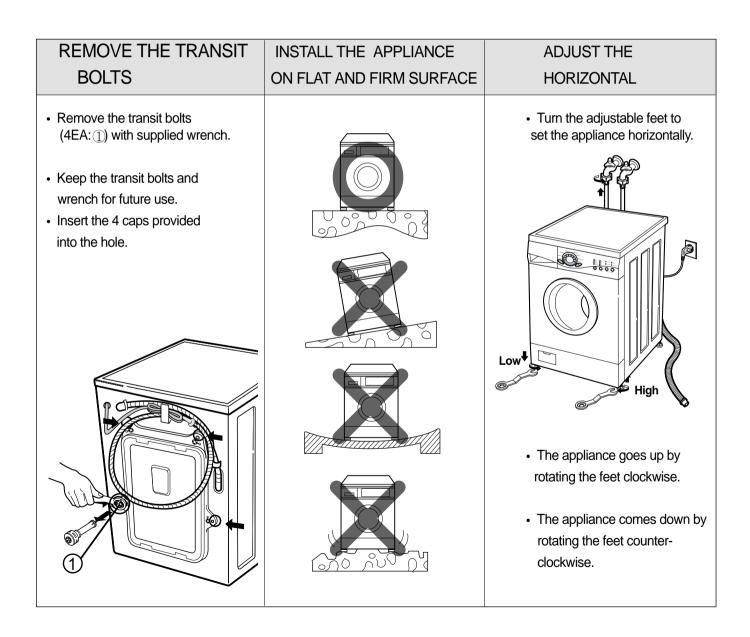
ACCESSORIES



4. INSTALLATION

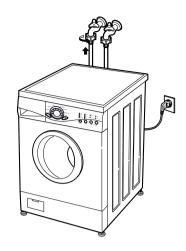
- 1 Before servicing ask the customer what the trouble is.
- 2 Check the adjustment (power supply is 220-240V, remove the transit bolts....)
- (3) Check the troubles referring to the troubleshooting.
- 4 Decide service steps referring to disassembly instructions.
- [5] Then, service and repair.
- 6 After servicing, operate the appliance to see whether it works O K or NOT.
- STANDARD INSTALLATION

The appliance should be installed as follows.

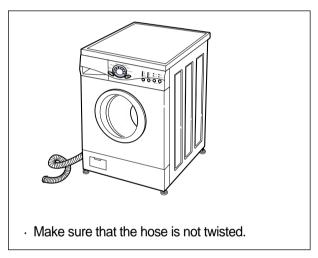


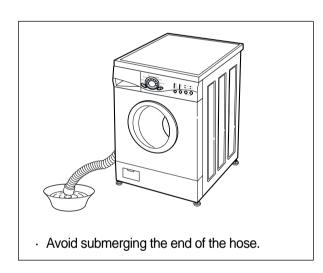
■ HOW TO CONNECT INLET HOSE

- Check that the rubber washer is inside of the valve connector.
- Connect the inlet hose firmly to prevent leak.



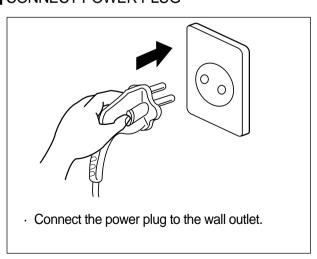
■ CONNECT DRAIN HOSE

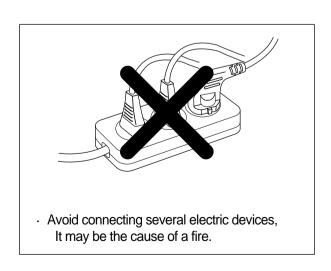




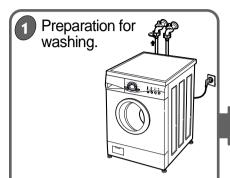
* The drain hose should be placed under 100cm from the floor.

■ CONNECT POWER PLUG





7 TEST OPERATION



- Connect the power plug to the outlet.
- Connect the inlet hose.

Press the power button.



• In case of cotton program.

Press the START/PAUSE button.



6 Check the water heating.



Check automatic reverse turn.



· Check if the drum rotates clockwise and counterclockwise.

Check the water supply.



· Check if water is supplied through the detergent dispenser.

- Check drain and spin
- Press the Start/Pause button after selecting Pump button by pressing Program button.

8 Power off and open the door



- · Power off and then power on.
- · Check if the door can be opened after 2 minutes.

Water removal



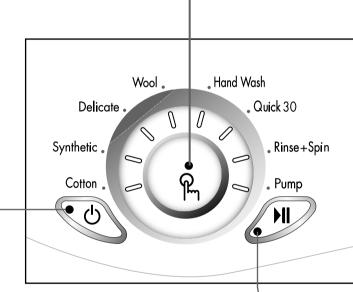
 If SVC is needed during check, remove the remaining water by pulling out the hose cap.

Wash program selector

- 8 programs can be set depending on the type of the laundry.
- By pressing the button
 [Cotton → Synthetic → Delicate → Wool → Hand Wash → Quick 30 → Rinse+Spin → Pump]
 can be selected.

Power button

• Press the button to turn on and off.



Start/Pause button

- Use the button to start or pause wash cycle.
- The power turn off automatically 4 minutes after the pause button is pressed.

Spin

- WD(M)-10130(1, 5)F No Spin → Rinse Hold → 400 → 800 → 1000
- WD(M)-80130F No Spin → Rinse Hold → 400 → 600 → 800
- WD(M)-65130F No Spin → Rinse Hold → 400 → 500 → 650

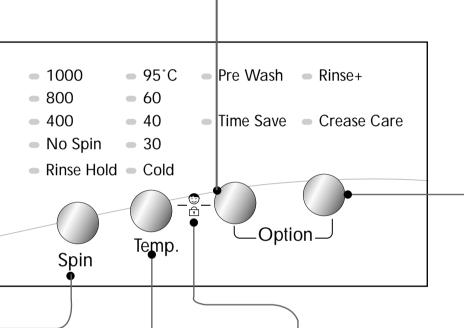
Option

Pre Wash: • If the laundry is heavily soiled, "Pre Wash" course is effective.

• Pre Wash is available in Cotton and Synthetic Program.

Time Save : • By selecting the Time Save option, the wash time may be reduced, depending on the

program selected.



Option

- Rinse+: If you wish to rinse more, the Rinse+ option will remove any trace of detergents.
- Crease Care: If you want to prevent crease, select this function after selecting spin speed.

Water temperature selector

- Press the button to select water temperature.
- The water temperature [40°C → 60°C→ 95°C→ Cold
 - → 30°C] can be selected in Cotton.
- 95°C is selected for Cotton only.

Child - lock

NOTE

If the Program lamps are blinked at the same time after the power off or the end of the washing, the child lock mode is set. Cancel the child lock mode by pressing the [Temp.] and the [Option] button simultaneously for 3 seconds.

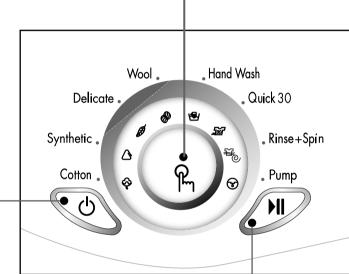
- Child Lock system can be set and canceled by pressing both [Temp.] and [Option] button simultaneously for 3 seconds.
- Once Child Lock is set, all button are inoperable except power button.
- Child Lock system can be set anytime even during Power-off and operation.
- It is automatically cancelled when an operational error occurs.

Wash program selector

- 8 programs can be set depending on the type of the laundry.
- By pressing the button
 [Cotton → Synthetic → Delicate → Wool → Hand Wash → Quick 30 → Rinse+Spin → Pump]
 can be selected.

Power button

 Press the button to turn on and off.



Start/Pause button

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- WD(M)-65130F No Spin → Rinse Hold → 400 → 500 → 650

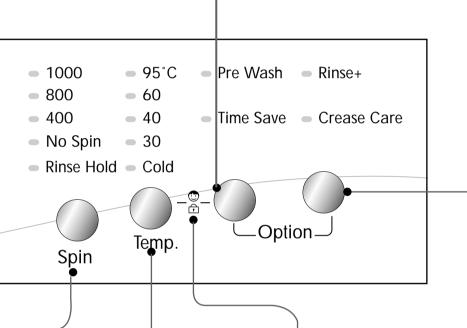
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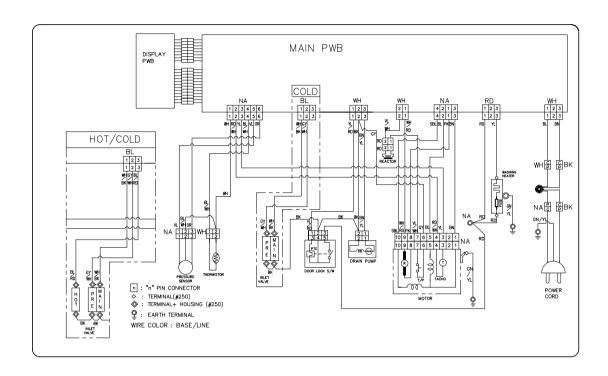
Child - lock

NOTE

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- Child Lock system can be set anytime even during Power-off and operation.
- It is automatically cancelled when an operational error occurs.

6. WIRING DIAGRAM / PROGRAM CHART



																*	Wa	iter	Su	pply	/ : V	VÆ5		*	Inte	rmit	ten	t Sp	oin :	: IÆ	i	*	Dis	entangle	: DÆ			
/√C			Washing										Rinse											Spin				Α										
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	\	\ P	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	20	20	(Hour.iminute)				
U R S E	/-	Time (SEC)	120	MIN	60	240	120		MIN	120	60	60	60	240	120	360	60	240	120	360	60	240	120	360	60	240	120	360	60	480	120	20	20					
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- Basic Cycle

- Data Cycle
 Pre-Setting Time : Water Supply 120 sec.
 Drain 60 sec.
 * ~ Time for varies as the temperature or the amount of laundry
- * Basic time is minute in washing chart
- The actual program time can be varied with the load amount, water temperature or ambient temperature
- * Pre Wash: •If the laundry is heavily soiled, "Pre Wash" course is effective.
 - •Pre Wash is available in Cotton and Synthetic.
- * Time Save : This option can be used to reduce the time of a wash program.
 - To use this option press the Time Save button once before the wash program is started.
 - This option is not available with Quick 30 program.
- * Rinse+: Used to additional rinse, which may assist in removing traces of detergent residue.
 - By selecting Rinse⁺ function, the rinse time and the rinse water are increased.
- * Crease Care: If you want to prevent crease, select this button with spin speed.

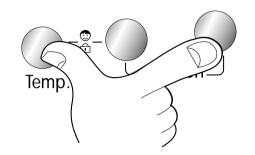
7. TROUBLESHOOTING

7-1. BEFORE PERFORMING SERVICE

- Be careful of electric shock or disconnecting the parts while troubleshooting.
- Voltage of each terminal in 220-240V~ and DC while applying an electric current.

7-2. QC TEST MODE.

- ① Pressing **Temp**, and **Option** button simultaneously.
- ② Power supply ON with pressing upper two button.
- ③ Press the START/PAUSE button as follows.
 [Press the START/PAUSE button more 4 times until stop spinning]



Pressing number of [START/PAUSE] button	Checking Point						
None	All lamps turn on						
1 time	Clockwise spin (right)						
2 times	Low speed spin						
3 times	High speed spin						
4 times	Inlet valve for pre-wash operation						
5 times	Inlet valve for main-wash operation						
5 times	Hot inlet valve in case of hot water fill						
6 times	Inlet valve for main-wash operation						
7 times	Counterclockwise spin (left)						
8 times	A Heater is in operation for 3 sec.						
9 times	Draining pump operation						
10 times	Auto off operation						

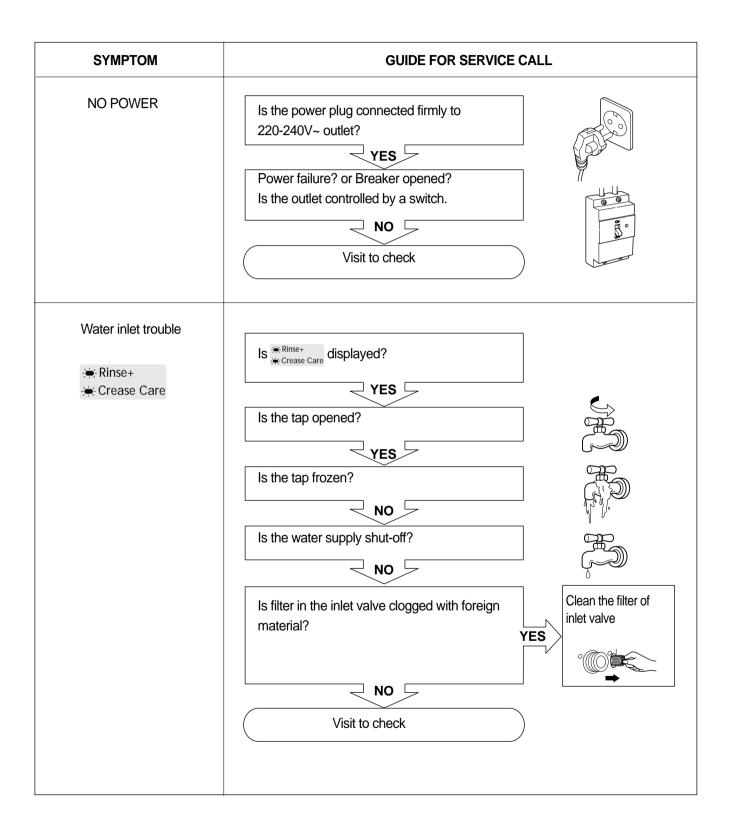
7-3.ERROR DISPLAY.

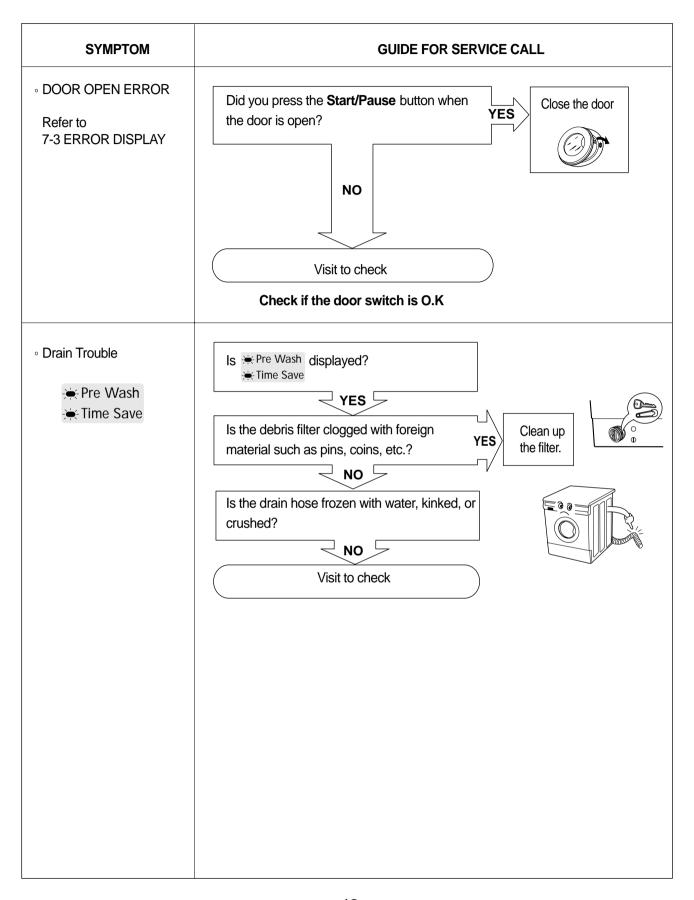
- If you press the [Start/Pause] button when an error in displayed, any error except **S/W ERROR** will disappear and the machine will change into pause status.
- In case of **SENSOR PRESSURE S/W ERROR , FHEATING ERROR , FDOOR OPEN ERROR , if** the error is not resolved within 20 sec. In the case of other errors, if the error is not resolved within 4 min. power will be turned off automatically and the error code will be blinked. But in case of **OVER FLOW ERROR ,** power will not be turned off.

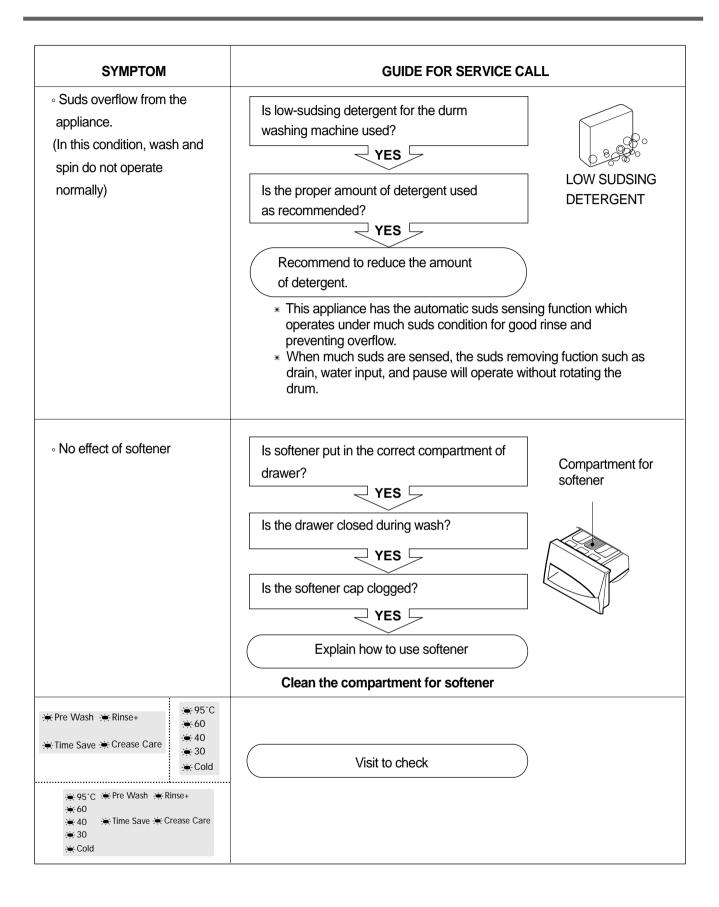
	ERROR	SYMPTOM	CAUSE
1	WATER INLET ERROR	Rinse+ Crease Care	 Water has not reached to the pre-set level within 4 min. since inlet valve operated, or water has not reached to the normal level within 25 min.
2	IMBALANCE ERROR	★ 1000★ 800★ 400★ No Spin★ Rinse Hold	 The appliance is tilted. Laundry is gathered to one side. Non distributable things are put into the drum.
3	DRAIN ERROR		Water has not drained enough within 5 min.
4	OVERFLOW ERROR	Rinse+ Rinse+ Time Save Crease Care	Water is automatically being pumped out because too much water is in the tub.
5	SENSOR PRESSURE S/W ERROR	95°C	The sensor pressure switch is out of order.
6	DOOR OPEN ERROR	# 95°C # Pre Wash # Rinse+ # 60 # 40 # Time Save # Crease Care # 30 # Cold	 The [Start/Pause] button is pressed with the door open. The door switch is out of order.
7	HEATING ERROR	# 95°C ⇒ # 60 # 40 ⇒ # 30 # Cold	○ The thermistor is out of order.

8. ERROR DIAGNOSIS AND CHECK LIST

8-1.DIAGNOSIS AND ANSWER FOR ABNORMAL OPERATION



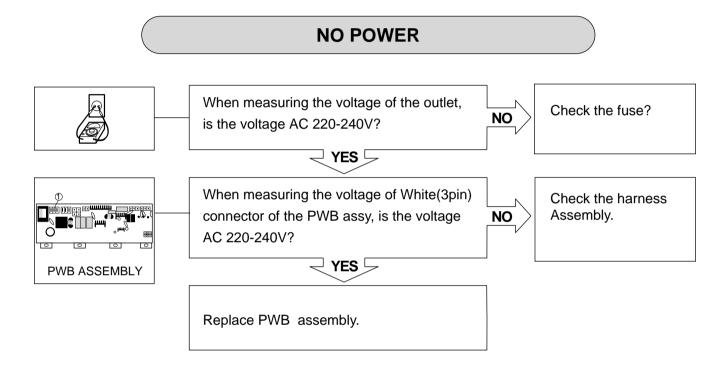




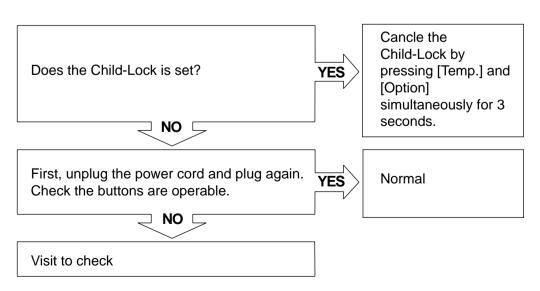
8-2. FAULT DIAGNOSIS AND TROUBLESHOOTING

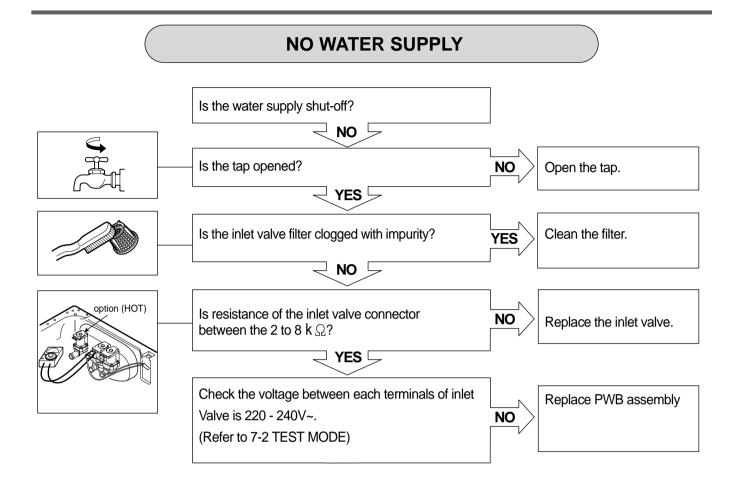
CAUTION

- 1. Be careful of electric shock or disconnecting the parts while troubleshooting.
- 2. First of all, check the connection of each part terminal with wiring diagram.
- 3. If you replace the PWB assembly (Main), put in the connectors correctly.

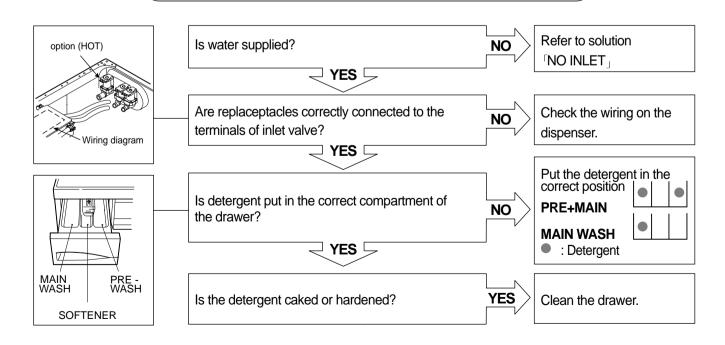


ALL BUTTONS ARE INOPERABLE EXCEPT POWER BUTTON

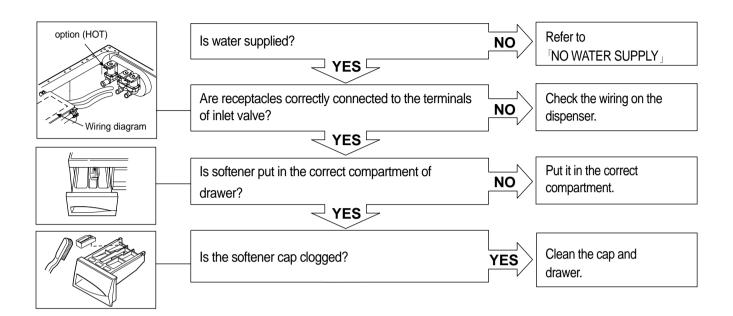




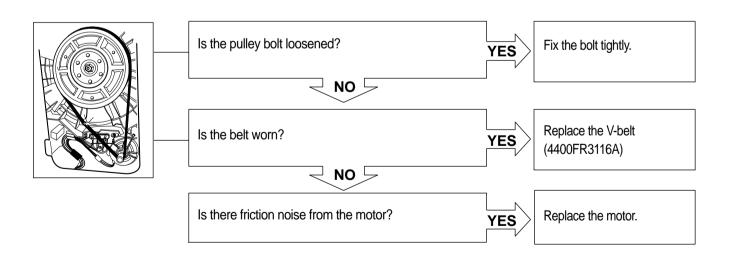
DETERGENT DOES NOT FLOW IN



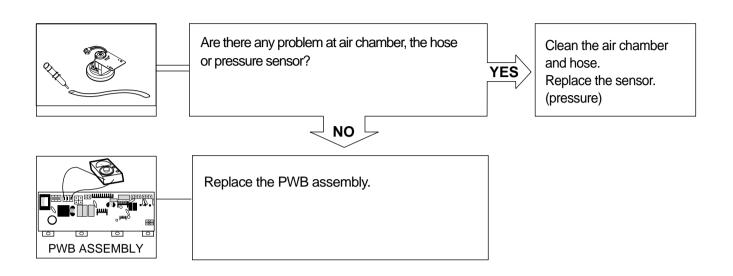
SOFTENER DOES NOT FLOW IN



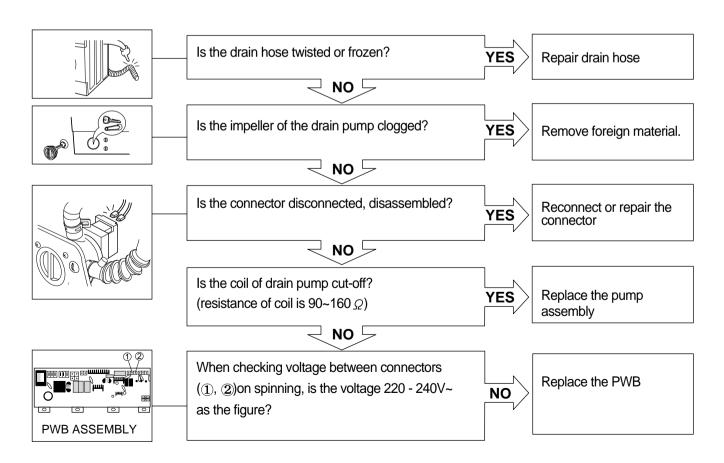
ABNORMAL SOUND



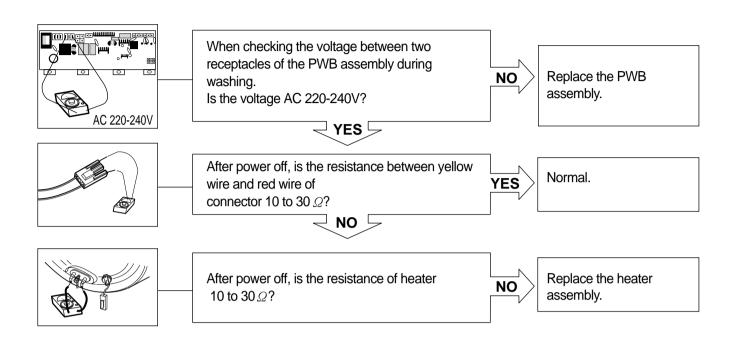
HEATING WITHOUT WATER



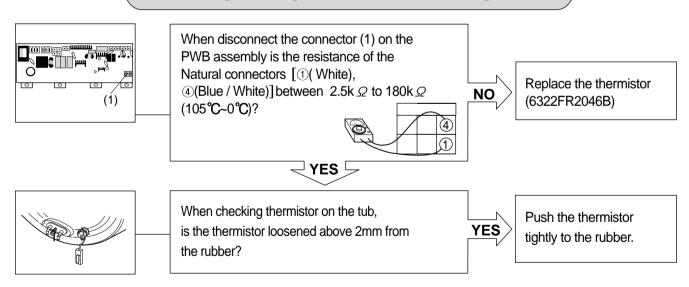
DRAIN MALFUNCTIONING

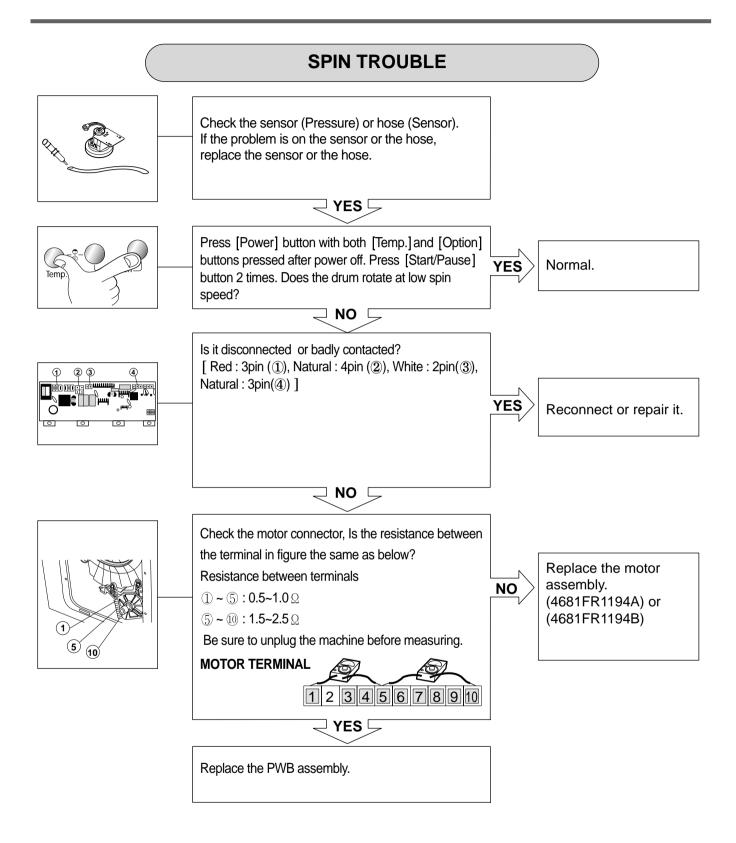


WASH HEATER TROUBLE



HEATING CONTINUOUSLY ABOVE THE SETTING WATER TEMPERATURE

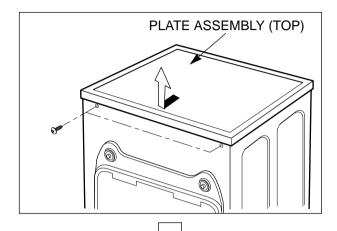




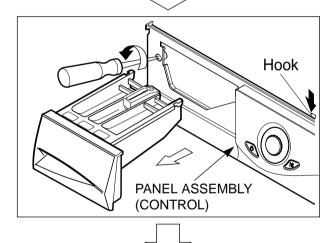
9. DISASSEMBLY INSTRUCTIONS

* Be sure to unplug the machine out of the outlet before disassembling and repairing the parts.

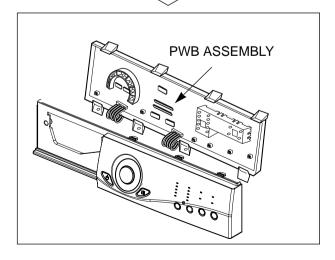
CONTROL PANEL



- ① Unscrew 2 screws on the back of the top plate.
- ② Pull the top plate backward and upward as shown.

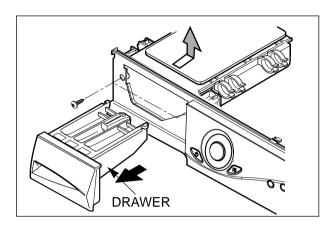


- ① Disconnect the PWB Assembly connector from Main lead wire Assembly.
- 2) Pull out the drawer and unscrew 2 screws.
- ③ Push upper hooks down on the top and pull the control panel.

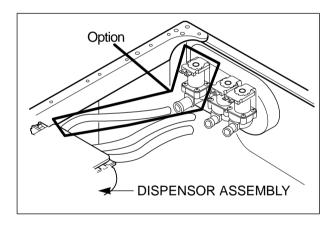


① Disconnect the PWB assembly from the control panel by pushing 4 hooks down.

DISPENSER ASSEMBLY

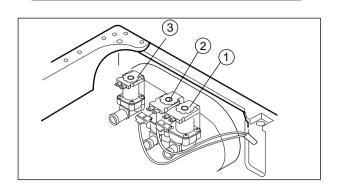


- ① Disassemble the top plate assembly.
- ② Pull out the drawer to arrow direction.
- ③ Unscrew 2 screws.



- ① The hose clamps and the hose are disassembled.
- ② The ventilation bellows and the water inlet bellows are disassembled on the tub.

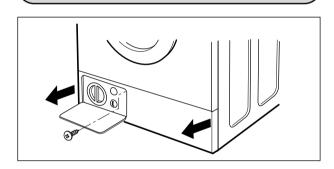
INLET VALVE



- ① Disconnect the wiring receptacle.
- ② Unscrew 2 screws from the back.
- »When reconnecting the connector

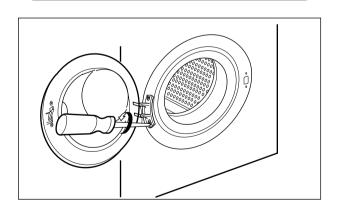
VALVE #1 (MAIN)	Whited/Black-Black							
VALVE #2 (PRE)	Black - Gray							
VALVE #3 (HOT)	Blue/White - Black							

LOWER COVER



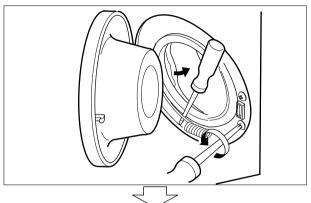
■ Open the lower cover plate by using coin and pull out the lower cover in the arrow direction after a screw is unscrewed.

DOOR

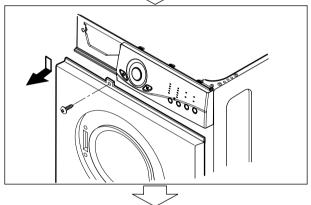


- ① Open the door completely.
- ② Remove the two screws from the hinge.
- *When removing the door assembly, it is necessary to hold the bracket that is inner of the cabinet cover.

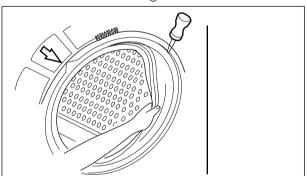
GASKET ASSEMBLY



- ① Take apart the cabinet gasket clamp.
- ② Unscrew 2 screws from the cabinet cover.
- ③ Open the lower cover cap and unscrew 1 screw inside.
- ④ Take apart the lower cover.

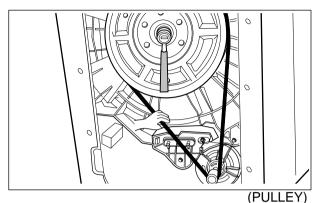


① Unscrew all the screws on the upper and lower sides of the cabinet cover.

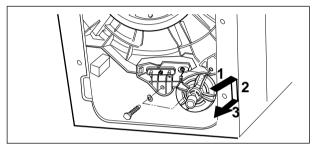


- ① Take apart the tub gasket clamp.
- ② Make sure that the drain hole of the gasket is put beneath when reassembling the gasket.
- *Refer to the arrow mark on the tub cover.

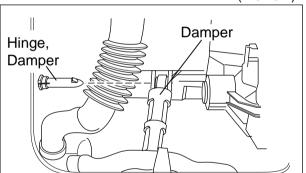
PULLEY, MOTOR, DAMPER



- ① Remove the back cover.
- ② Take off the belt turning the pulley.
- ③ Unscrew the bolt to pull out the pulley.



- (PULLEY
- ① Unscrew 2 screws from the bracket.
- ② Push the motor in the arrow direction for disassembling.
- ③ When reassembling the motor, make sure that motor mounting bushings are not taken off from the bracket.

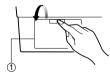


(MOTOR)

(DAMPER)

- $\ensuremath{\textcircled{1}}$ Pull out the hinge, pressing its snap.
- ② Do not use the pulled out hinge again. It may be taken off during operation.

■ Clean the drain pump filter



Open the lower cover cap (1) by using a finger Turn the drain plug (2) to pull out the hose.



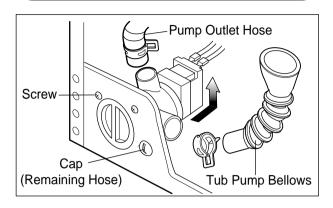
Unplug the drain plug (②), then the water flows out,
At this time use a vessel to prevent water flowing on the

floor. If the water does not flow any more, turn the pump filter (③) open to the left.



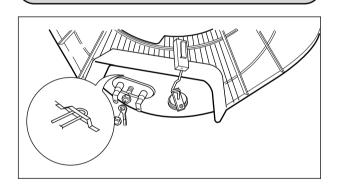
Take out any foreign material from the pump filter (③). After cleaning, turn the pump filter(③) clockwise and insert the drain plug (②) to the original place. close the lower cover cap.

PUMP



- ① Remove pump outlet hose.
- ② Remove tub pump bellows.
- ③ Remove cap (Remaining Hose.)
- (4) Disconnect the wiring.
- ⑤ Unscrew 2 screws.
- 6 Remove the pump.

HEATER

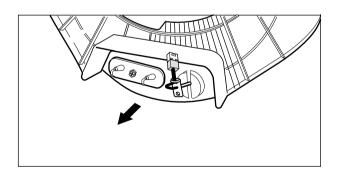


① Loosen the M6 heater nut to pull out the heater.

CAUTION

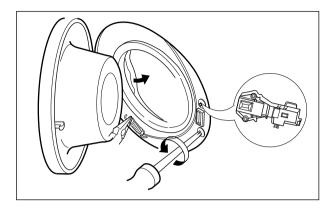
When mounting the heater, be sure to insert the heater into the heater clip on the bottom of the tub.

THERMISTOR



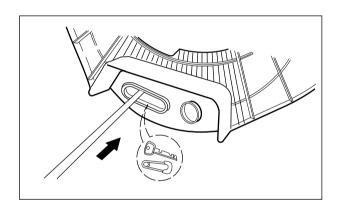
- ① Pull it out by holding the thermistor bracket.
- * If it is pulled by the wire, it may be broken.
- ② When mounting the thermistor again, make sure that it is got back tight to the bushing.

SWITCH ASSEMBLY, DOOR LOCK



- ① Take apart the cabinet cover clamp and release the gasket.
- ② Unscrew 2 screws holding the door lock.
- ③ Disconnect the door lock from the wiring connector.

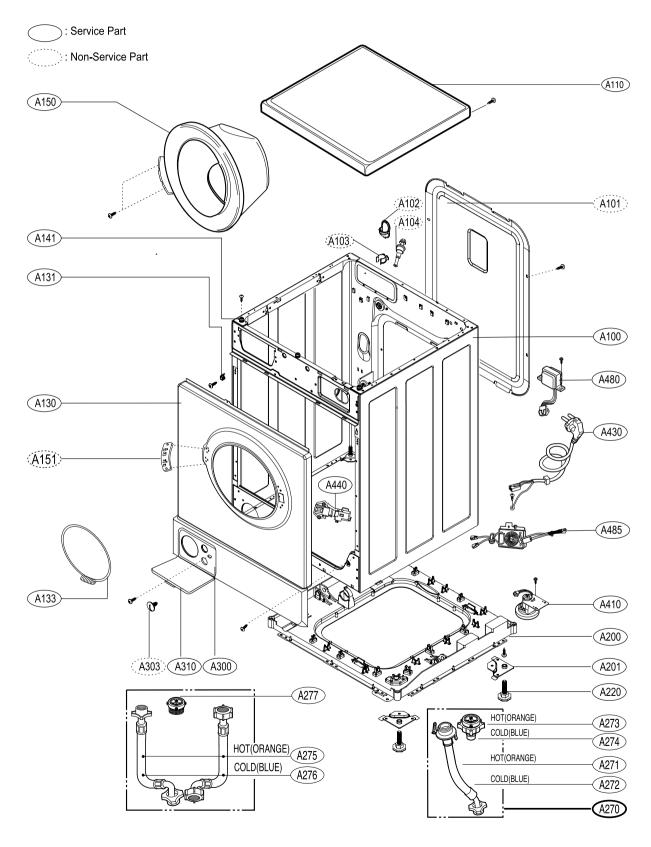
WHEN FOREIGN MATERIAL IS STUCK BETWEEN DRUM AND TUB



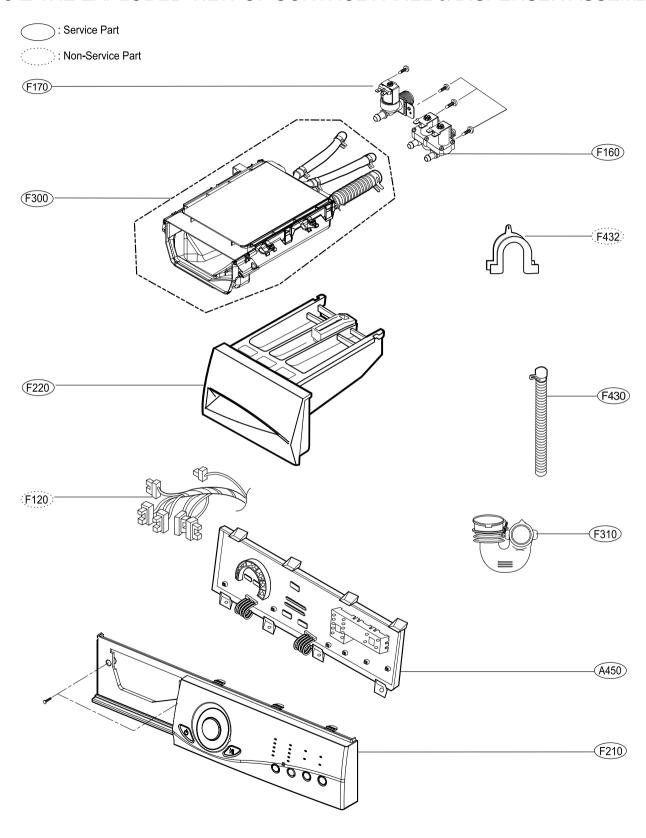
- ① Remove the heater.
- ② Remove the foreign material (wire, coin and others) by inserting a long bar through the hole.

10. EXPLODED VIEW

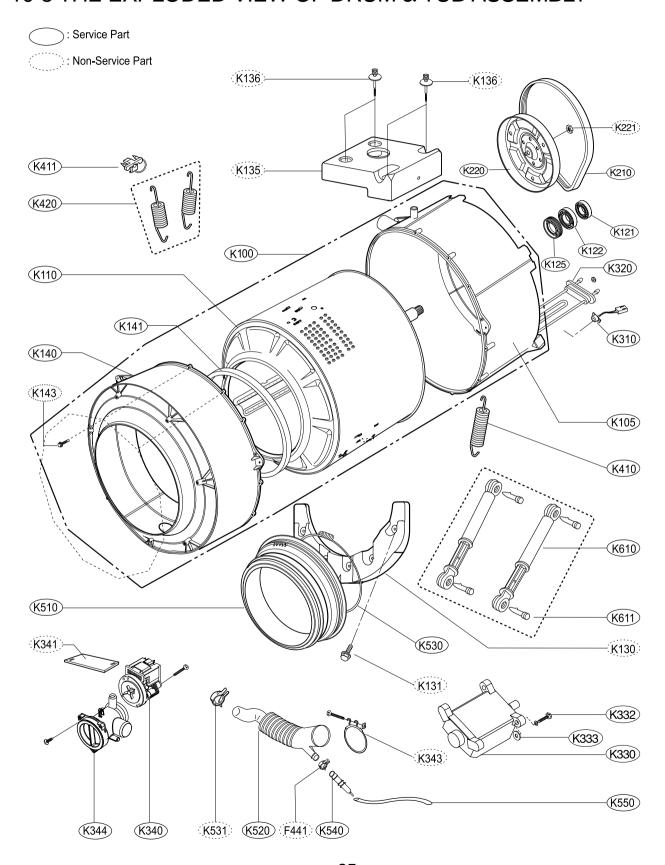
10-1.THE EXPLODED VIEW OF CABINET ASSEMBLY



10-2 THE EXPLODED VIEW OF CONTROL PANEL & DISPENSER ASSEMBLY



10-3 THE EXPLODED VIEW OF DRUM & TUB ASSEMBLY





Mar. 2002 PRINTED IN KOREA

P/No.:3828ER3013A